

Case Study:

What Works for All Students

Data Released -September, 2006

STUDENT OUTCOMES

Preliminary data suggests significant increases in students' writing performance when using SOLO paired with the writing strategy instruction.

NCTI "Quasi-Experiment" and Research Study

Proven Writing Strategies Paired with Innovative Technologies Increased Student Outcomes (on Average) 24% for Low, Middle and High Performers - SOLO®

Background

In 2005, The National Center for Technology Innovation (NCTI) issued a grant to examine the effects on student outcomes using validated writing strategies paired with an innovative and universally-designed technology program called SOLO. This quasi-experimental design utilized a pre- and post-test group in nine classrooms serving students in grades 3, 4 and 5.

Implementation Model

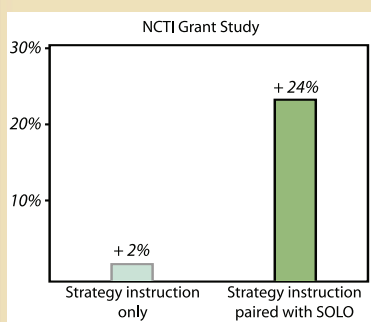
Karen Erickson, Ph.D., Associate Professor at the University of North Carolina at Chapel Hill developed the design and implementation model. The six-week study compared writing outcomes using writing strategy instruction alone with writing strategy instruction paired with SOLO technology.

The writing strategies model was based on the self-regulated strategy instruction (SRSI) model developed by Steve Graham, Ed.D. and Karen Harris, Ed.D. from Vanderbilt University. The SRSI model leverages specific teaching strategies for instruction, implementation and rapid ramp-up of writing skill mastery.

SOLO was developed by Don Johnston Incorporated to build reading and writing skills, extend learning practice to boost overall student writing abilities, increase confidence and written expression.

The PLEASE strategy shown in Figure 1 (see following page) is one of the strategies used in the study that integrates the SRSI framework with SOLO. This writing strategy approach teaches students to write in a fluent and automatic way and is especially effective for students with diverse learning styles.

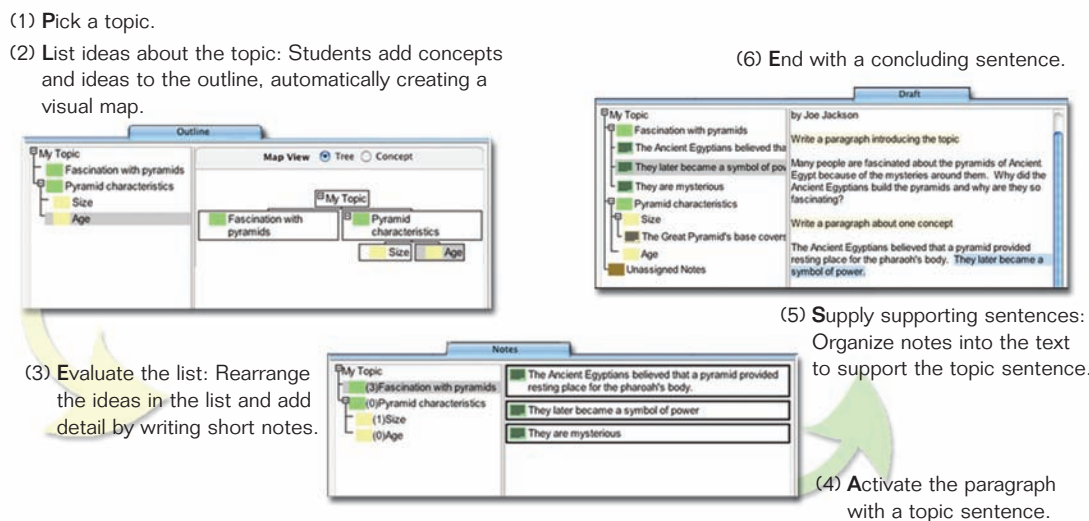
The students who received self-regulated strategy instruction along with the SOLO technology and who performed at or below average on the pre-test, increased performance by over 24%.



Average students made a gain of just under 10%, while the students who were 1.5 or more standard deviations below the average at pretest made the largest gain at 48%.

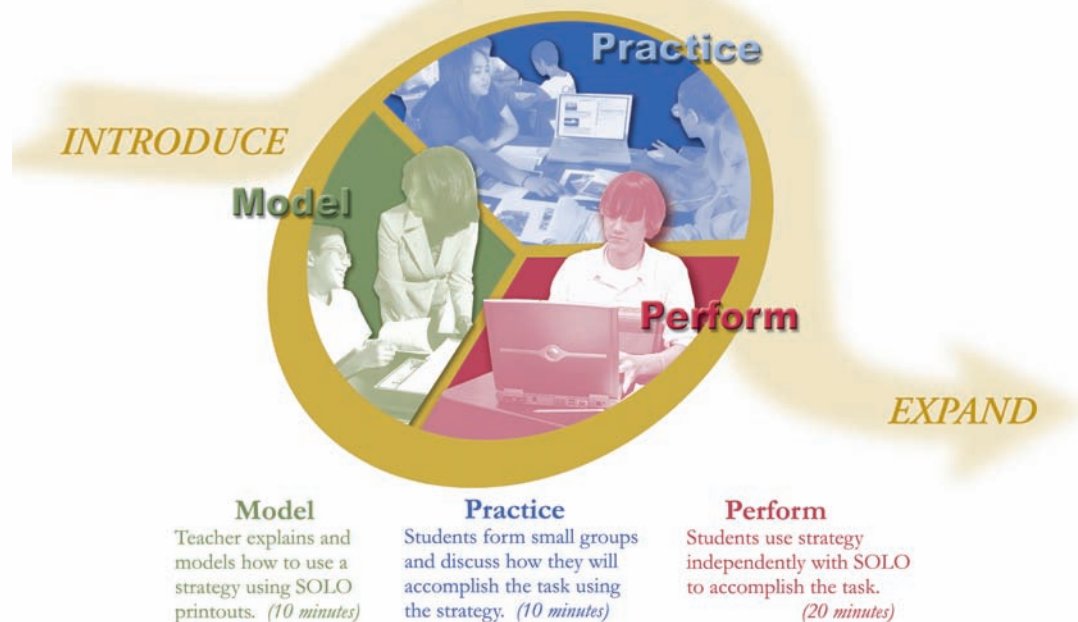
Figure 1.

PLEASE Expository Writing Strategy



Three curriculum units were developed to teach students how to use effective writing strategies to address summary, narrative and expository writing techniques. Each curriculum unit was designed for implementation over the course of 18 instructional days using the instructional model illustrated in Figure 2. This model included checkpoints with relevant student feedback and information to guide teachers throughout the writing process.

Figure 2.



By the end of each curriculum unit, the goal was to enable students to use the writing strategies to effectively write summaries, stories and expository essays. Any of the three units (summary writing, narrative writing and expository writing) could be implemented to match the curriculum during the intervention period.

The group who received writing strategy instruction paired with SOLO technology used pre-made SOLO assignments and the instructional framework embedded in the technology for independent practice to reinforce and extend the writing strategy instruction. Students used SOLO three times a week for 45 minutes, totaling 18 lessons.

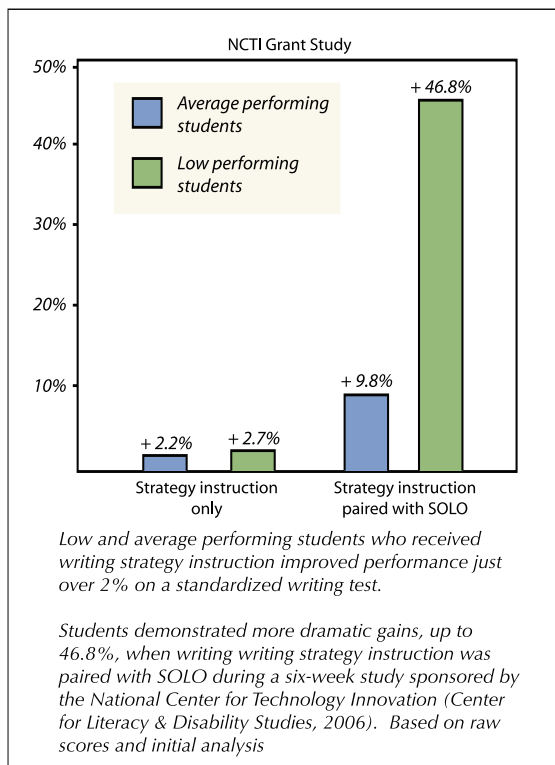
Results

Preliminary data demonstrated in Figure 3 suggests significant increases in writing literacy when using SOLO paired with the writing strategy instruction. The students who performed at or below average on the pretest and received only the self-regulated writing strategy instruction realized a 2% writing performance gain on the contrived subtests of the Test of Written Language (TOWL-3).

The students who received self-regulated strategy instruction along with SOLO technology and who performed at or below average on the pre-test, increased performance by over 24%. Average students made a gain of just under 10%, while the students who were 1.5 or more standard deviations below the average at pretest made the largest gain at 48%.

"What makes these results even more impressive is that the low performing students realized significantly larger gains than the average performing students," said Dr. Karen Erickson, Associate Professor, Dept. of Allied Health Sciences, University of North Carolina.

Figure 3.



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Dr. Karen Erickson,

Associate Professor,

Department of Allied Health Sciences,

University of North Carolina.

Students Think and Learn Differently...
*Enrich the Learning Experience for Every Student
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